asymptomatic. Because bacteriuria in older adults has been associated with an increased mortality rate, these diagnostic screening methods are of clinical importance.

The management of asymptomatic bacteriuria in the elderly is subject to debate and is under further investigation. Limited treatment trials with antibiotics for asymptomatic bacteriuria in geriatric patients have had high recurrence rates. On the other hand, any geriatric patient with symptomatic bacteriuria (bacteriuria and symptoms of infection) should be treated. Current treatment recommendations include 7 to 14 days of therapy with a safe, nontoxic, easily filtered drug such as the penicillins, cephalosporins, shortacting sulfonamides, tetracycline, trimethoprim or trimethoprim-sulfamethoxazole after the infectious agent is identified by urine culture. While single-dose and short-course antibiotic regimens have been therapeutically effective in healthy young women with uncomplicated lower urinary tract infections, this approach in the elderly has had unacceptably high rates of failure in recent studies. When bacteremia may be present, parenteral therapy with antibiotics such as aminoglycosides and cephalosporins should be used. After the pathogen is identified, the regimen can be changed to a safer appropriate drug. Elderly patients with structural abnormalities of the urinary tract, such as calculi, or chronic bacterial prostatitis may become reinfected, usually within one to two weeks. These patients who quickly relapse need to be evaluated further. If no structural abnormalities are found, then a three- to six-week course of therapy is recommended.

Long-term prophylactic therapy with trimethoprim (alone or in combination with sulfamethoxazole) for frequent symptomatic reinfection has been used successfully; urine cultures, however, should be done frequently and the antibiotic changed if bacteriuria recurs. Patients with indwelling catheters should have periodic urine cultures to identify the current infecting organism. Extended chemoprophylaxis for this group of patients does not prevent infection and risks drug-resistant sepsis.

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Assessing the Fetal-Placental Unit

Many common complications of pregnancy, notably, gestational diabetes, pregnancy-induced hypertension and post-maturity, adversely affect the placenta and thereby place a fetus's ability to tolerate labor in jeopardy. Over the past two decades, numerous techniques have evolved for assessing the status of the fetal-placental unit; yet, until recently these techniques have often been costly, cumbersome and time-consuming.

Maternal urine or serum estriol determinations are sensitive predictors of fetal-placental function. Their appropriate use, however, requires serial determinations, often over a period of several days or weeks, and can incur considerable expense. Oxytocin contraction testing also is a reliable pre-

dictor of fetal-placental function, yet the need for intravenous administration of medication makes this process technically cumbersome. Non-stress testing, which has generally supplanted the oxytocin contraction testing as an initial screening device, is a reasonable predictor of fetal well-being but may less reliably predict fetal-placental function, particularly during the stress of labor. Maternal perception of fetal movement has long been recognized as an indicator of fetal well-being, and there have been recent efforts to develop fetal movement count protocols. Such counts are best used as a qualitative screening assessment with other more quantitative techniques used to more precisely assess fetal status.

Two more recently developed screening techniques appear to provide rapid and accurate assessment of fetal-placental function. Ultrasonic determination of amniotic fluid volume is one such technique. While the volume of amniotic fluid normally diminishes as the pregnancy approaches term, a finding of significant oligohydramnios is a specific predictor of poor placental function, particularly in a postmature pregnancy. It appears also that the presence of spontaneous fetal respirations detected on real-time ultrasound is predictive of fetal well-being.

Mammary self-stimulation contraction stress testing is a second new technique for assessing fetal-placental function. Breast self-stimulation can safely produce sufficient oxytocin secretion to stimulate contractions that satisfy standard criteria for a contraction-stress study. The test, effective in about 60% of women, is rapid—generally requiring less than half the time of a standard oxytocin contraction test—reliable and well accepted by patients.

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Tuberculosis in Nursing Homes

EVEN THOUGH the incidence of tuberculosis for all ages has declined yearly since before 1900, elderly persons now account for the largest proportion of tuberculosis cases of any age group. The predominance of cases in the elderly has been attributed to reactivation of previous infections that occurred when tuberculosis was much more prevalent. The high incidence in the elderly cannot be explained by the increase in the proportion of people in the population older than 65. Factors contributing to this problem include the delay of diagnosis due to atypical clinical presentations of reactivated infections and impaired immunologic responsiveness associated with advancing age and many chronic diseases.

Stead and co-workers have shown that newly acquired cases of tuberculosis can occur in nursing homes. There have been several reports of tuberculosis epidemics among residents of nursing homes, and the predisposing factor has been close living quarters that allows dissemination. Stead showed that in Arkansas 10% to 15% of persons newly admitted to